



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/539,538	02/05/2007	Alan Theobald	2085.003 US1	6526
21186 7590 10/07/2008 SCHWEGMAN, LUNDBERG & WOESSNER, P.A. P.O. BOX 2938 MINNEAPOLIS, MN 55402				
EXAMINER				
HAYES, BRET C				
ART UNIT		PAPER NUMBER		
3641				
MAIL DATE		DELIVERY MODE		
10/07/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/539,538

**Applicant(s)**

THEOBALD ET AL.

**Examiner**

BRET HAYES

**Art Unit**

3641

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/ICE)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 15 – 18 and 27 – 29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
3. Claims 15 and 27 attempt to include more than one device. Such is improper as the recitations broaden the claimed subject matter of a singular device. Note that “the at least one other minesweeping device” also lacks antecedent basis in claim 27.
4. Any unspecified claim is rejected as being dependent upon a rejected base claim.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1 – 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent Nos. 6,213,021 B1 to Pickett in view of 5,552,372 to Ackermann et al. (*Ackermann*).
7. Re claim 1, Pickett discloses the claimed invention including a magnetic signature minesweeping device comprising: a water driven turbine power generator 32, Figs. 1 and 2, for example, and a ~~superconducting material~~ magnet, as set forth from col. 1, line 51 through col. 2, line 34, wherein the turbine power generator is arranged, in use, to supply a driving current for

the ~~superconducting material~~ magnet when the minesweeping device is towed through the water.

Pickett discloses the claimed invention except for the magnet being a superconducting material magnet.

Ackermann teaches that superconducting material magnets are well known in the art for the purpose of minesweeping, col. 1, lines 39 – 57.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Pickett to include the superconducting material magnet as taught by Ackermann in order to mine sweep. Rationale: All claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded predictable results to a skilled artisan at the time the invention was made.

8. Re claim 2, Pickett further discloses a control unit **42**.
9. Re claim 3, Pickett further discloses wherein the minesweeping device comprises a plurality of sensor units arranged, in use, to monitor the magnetic output of the superconducting magnet, and the power output of the turbine power generator, and further comprises a feedback arrangement to supply feedback signals from the sensor units to the control unit, whereby the magnetic output and power output can be optimized for a specific mine countermeasure task. This is asserted because whether explicitly disclosed as such or not, Pickett discloses these elements in a similar arrangement, Fig. 2, for example, for the purpose of hunting sea mines.
10. Re claim 4, Pickett in view of Ackermann discloses the claimed invention except for explicitly stating that the generator comprises adjustable pitch blades. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the

blades adjustable, since it has been held that the provision of adjustability, where needed, involves only routine skill in the art. *In re Stevens*, 101 USPQ 284 (CCPA 1954). In this case, adjustability of the blades for reduced or increased power output would be within the level of ordinary skill in the art at the time the invention was made.

11. Re claim 5, Pickett further discloses wherein the superconducting material magnet is disposed as a single axis longitudinal magnetic source or as a three-axis magnetic source.

12. Re claim 6, Pickett further discloses wherein the minesweeping device further comprises a communications unit arranged, in use, to enable remote access to the control unit, as set forth at col. 1, lines 8 – 12.

13. Re claim 7, in light of claim 6 above, Pickett discloses the claimed device except for the particular type of communications unit. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the communications unit of Pickett with the any of the claimed types because it is well settled case law that a reference is valid for what it would convey explicitly or implicitly to one skilled in the art. See *In re Aller et al.* 105 USPQ 233, *In re McKee et al.* 37 USPQ 613, *In re Meinhardt* 157 USPQ 270. In this case, each selected type of unit is well known in the maritime art.

14. Re claims 8 – 10, Pickett in view of Ackermann discloses the claimed invention. Ackermann further teaches a superconductor material magnet, as set forth at col. 1, lines 30 – 38. This is asserted because where the prior art discloses the claimed materials, properties of those materials are considered to be inherent.

15. Re claim 11, Pickett in view of Ackermann discloses the claimed invention except for the magnet exhibiting a permanent magnetic output component and a variable magnetic output

component. It would have been obvious to one having ordinary skill in the art at the time the invention was made to include both components, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). In this case, so long as the overall magnetic signature mimicked that of a ship, its components would be within the level of ordinary skill.

16. Re claim 12, Pickett further discloses wherein the control unit is arranged, in use, such that the magnetic output is variable as a function of time and/or position, for facilitating the generation of desired magnetic signatures for simulating vessels, the device including at least one position sensor to which the control unit is responsive. Pickett discloses the blade **34** moving in response to the rectifier **40** via the control unit. The manipulation of the magnetic output would be within the level of ordinary skill in the art as applied to claim 11 above.

17. Re claim 13, Pickett further discloses wherein the device is a magnetic signature device operable in target emulation mode (TEM), wherein it emulates the magnetic signature of a particular vessel. This is asserted because: Pickett discloses a target emulation mode; and, the term “operable” has been interpreted as “capable of operating,” which the prior art is certainly, similarly capable.

18. Re claim 14, Pickett further discloses wherein the device is operable in mine setting mode (MSM), and is programmed to produce a magnetic signature associated with a particular type of mine for triggering said mine. This is asserted for the reasons set forth above with respect to claim 13.

Additionally it is noted that the claims are directed to an apparatus per se, not a method of operation.

However, the claim contains a limitation concerning the method/manner of operating the device, i.e., “is programmed...”

Note that it is well settled case law that such limitations, which are essentially method limitations or statements of intended or desired use, do not serve to patentably distinguish the claimed structure over that of the reference. See *In re Pearson*, 181 USPQ 641; *In re Yanush*, 177 USPQ 705; *In re Finsterwalder*, 168 USPQ 530; *In re Casey*, 152 USPQ 235; *In re Otto*, 136 USPQ 458; and, *Ex parte Masham*, 2 USPQ2nd 1647.

See MPEP 2114, which states:

A claim containing a “recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus” if the prior art apparatus teaches all the structural limitations of the claim. *Ex parte Masham*, 2 USPQ2nd 1647.

Claims directed to apparatus must be distinguished from the prior art in terms of the structure rather than functions. *In re Danly*, 120 USPQ 528, 531.

and,

Apparatus claims cover what a device is, not what a device does. *Hewlett-Packard Co. v. Bausch & Lomb Inc.*, 15 USPQ2d 1525, 1528.

19. Re claim 15 – 18, Pickett in view of Ackermann discloses the claimed invention except for duplicating the device and connecting duplicate devices together. It would have been obvious to one having ordinary skill in the art at the time the invention was made to duplicate the minesweeping device, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8. In this case, connection of the devices would be considered to be within the level of ordinary skill in the art as a normal course of using multiple devices.

20. Re claim 19, Pickett in view of Ackermann discloses the claimed invention except for the separation of elements. It would have been obvious to one having ordinary skill in the art at the time the invention was made to separate the elements as claimed, since it has been held that constructing a formerly integral structure in various elements involves only routine skill in the art. *Nerwin v. Erlichman*, 168 USPQ 177, 179.

21. Re method claims 20 – 30, in light of the structure disclosed by Pickett in view of Ackermann, the method of operating the device would have been obvious since it is the normal and logical manner in which the device could be used.

#### ***Conclusion***

Any inquiry concerning this communication should be directed to Bret Hayes at telephone number (571) 272 – 6902 or email address [bret.hayes@uspto.gov](mailto:bret.hayes@uspto.gov), which is preferred. The examiner can normally be reached Monday through Friday from 5:30 am to 2:00 pm, Eastern Standard Time.

The Central FAX Number is **571-273-8300**.

If attempts to contact the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone, can be reached at (571) 272 – 6873.

/Bret Hayes/

Primary Examiner, Art Unit 3641

7-Oct-08